

## Horticulture

Michigan placed third nationally in value of wholesale sales of floriculture products in 2003. Only California and Florida reported larger sales than Michigan. Reports from Michigan's 742 commercial growers (\$10,000 or more in gross sales) showed an estimated wholesale value of \$342 million for all surveyed floriculture crops, up 5 percent from last year's revised figure. This estimate includes summarized sales data as reported by growers with \$100,000 or more in sales plus a calculated wholesale value of sales for operations with sales from \$10,000 to \$99,999. The leading crop category breakdowns for Michigan operations with more than \$100,000 in sales were:

First, annual bedding/garden plants with \$178 million in sales.  
 Second, herbaceous perennial plants with \$52 million in sales.  
 Third, propagative materials with \$48 million in sales.  
 Fourth, potted flowering plants with \$33 million in sales.

Michigan led the nation in sales of 6 floriculture crops:

- Potted Geraniums (seed) with 13.5 million pots sold, valued at \$11.4 million.
- Potted New Guinea Impatiens with 4.2 million pots sold, valued at \$6.3 million.
- Geranium Hanging Baskets (cuttings) with 826,000 baskets sold, valued at \$5.4 million.
- New Guinea Impatiens Hanging Baskets with 768,000 baskets sold, valued at \$5.2 million.
- Potted Easter Lilies, 1.3 million pots sold, at \$4.6 million.

- Impatiens Hanging Baskets with 494,000 sold, valued at \$2.6 million.

Other crops that ranked second in sales nationally were:

- Impatiens (flats) with 2.4 million flats sold, valued at \$16.3 million.
- Petunias (flats) with 1.6 million flats sold, valued at \$11.2 million.
- Potted Geraniums (cuttings) with 4.9 million pots sold, valued at \$10.6 million.
- Begonias (flats) with 1.0 million flats sold, valued at \$6.8 million.
- Potted Hosta with 1.9 million pots sold, valued at \$6.2 million.
- Marigolds (flats) with 823,000 flats sold, valued at \$5.6 million.
- Petunia Hanging Baskets with 469,000 baskets sold, valued at \$2.7 million.
- Potted Petunias with 1.4 million pots sold, valued at \$2.5 million.
- Begonia Hanging Baskets with 348,000 baskets sold, valued at \$2 million.
- Other Flowering Hanging Baskets with 1.8 million baskets sold, valued at \$1.1 million.
- New Guinea Impatiens (flats) with 137,000 flats sold, valued at \$1.1 million.
- Geraniums from Seed (flats) with 89,000 flats sold, valued at \$875,000.

**Floriculture crops: Number of growers by gross value of sales, 1999-2003**

Year	\$10,000-\$19,999	\$20,000-\$39,000	\$40,000-\$49,000	\$50,000-\$99,999	\$100,000-\$499,999	\$500,000 or more	Total growers
	Number	Number	Number	Number	Number	Number	Number
1999	78	82	49	190	222	117	738
2000	74	89	44	170	239	131	747
2001	57	83	47	161	239	121	708
2002	60	121	65	187	234	124	791
2003	58	96	47	188	219	134	742

**Floriculture crops: Growing area by type of cover, 1999-2003**

Year	Glass greenhouses	Fiberglass and other rigid greenhouses	Plastic film greenhouses	Total greenhouse cover	Shade and temporary cover	Total covered area	Open ground
	1,000 square feet	1,000 square feet	1,000 square feet	1,000 square feet	1,000 square feet	1,000 square feet	Acres
1999	4,487	3,736	31,585	39,808	949	40,757	2,205
2000	4,441	4,096	32,665	41,202	1,106	42,308	3,299
2001	4,706	3,876	31,902	40,484	1,141	41,625	3,235
2002	4,653	3,884	36,501	45,038	1,370	46,408	3,831
2003	4,532	4,188	37,084	45,804	1,569	47,373	3,237

### Floriculture crops: Wholesale value of sales by category, 1999-2003

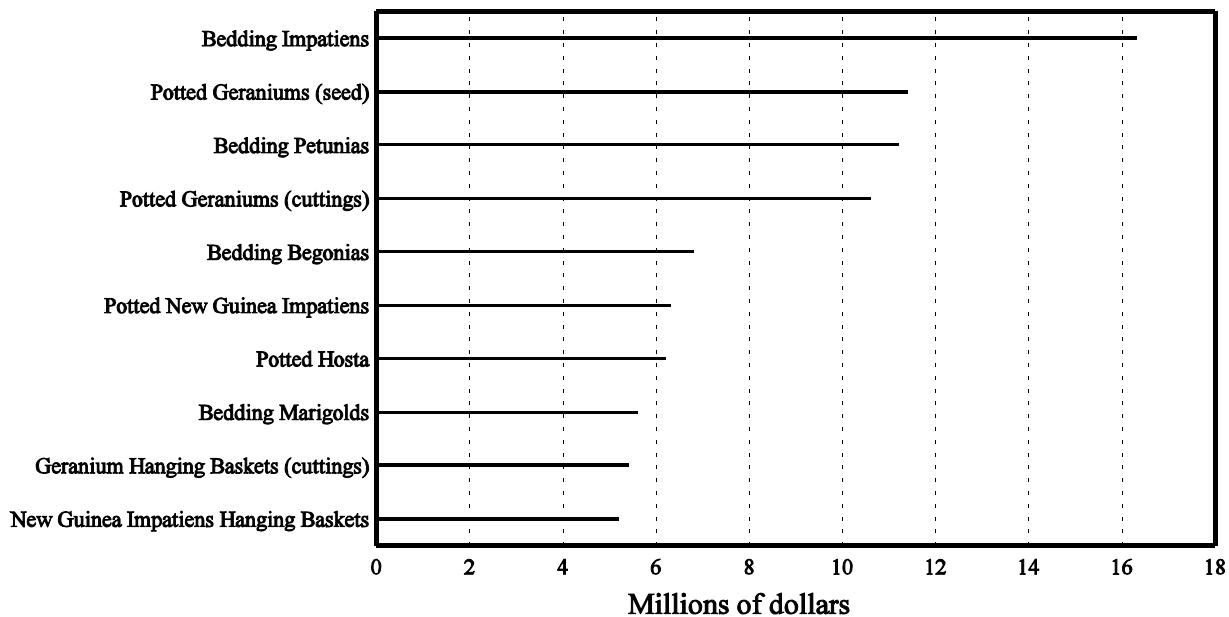
Year	Total cut flowers	Total potted flowering plants	Total foliage for indoor or patio use	Total bedding/garden plants	Total wholesale value of reported crops <sup>1</sup>	Expanded wholesale value of reported crops <sup>2</sup>
	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars
1999	4,995	27,828	2,996	175,988	211,807	231,939
2000	7,624	32,363	3,601	188,648	254,953	273,517
2001	8,119	29,447	3,531	188,216	263,158	280,745
2002	8,299	30,736	3,699	217,773	159,174	306,271
2003	8,797	32,567	3,370	229,934	177,724	322,754

<sup>1</sup> Total data for 1999 and 2000 are not comparable; total sales of propagative material were added in 2000.

<sup>2</sup> Wholesale value of sales as reported by growers with \$100,000 or more in sales of floriculture crops plus a calculated wholesale value of sales for growers with sales below \$100,000. The value of sales for growers below the \$100,000 level was estimated by multiplying the number of growers in each size group by the midpoint of each dollar range.

### Selected Floriculture Crops, 2003

Value of Sales



**Bedding plants: Producers, quantity sold, price, and value, 1999-2003**

Item	Producers	Quantity sold	Percent of sales at wholesale	Wholesale price	Value of sales at wholesale
	Number	1,000 flats	Percent	Dollars	1,000 dollars
Begonias					
2000	199	847	83	7.15	6,056
2001	209	1,025	86	7.06	7,237
2002	217	1,008	81	7.13	7,187
2003	227	1,026	82	6.66	6,833
Geraniums					
1999	99	757	88	8.28	6,268
Geraniums from cuttings					
2000	43	292	78	6.21	1,813
2001	27	85	39	12.25	1,041
2002	21	76	33	12.55	954
2003	18	57	20	11.37	648
Geraniums from seed					
2000	50	219	93	8.11	1,776
2001	52	113	87	11.53	1,303
2002	47	105	89	10.56	1,109
2003	40	89	79	9.83	875
Impatiens					
1999	249	2,912	82	6.47	18,841
2000	251	2,403	83	6.81	16,364
2001	242	2,344	83	7.05	16,525
2002	224	2,372	88	7.40	17,553
2003	238	2,383	86	6.85	16,324
Marigolds					
2000	205	789	89	6.87	5,420
2001	214	794	86	7.35	5,836
2002	219	731	90	7.39	5,402
2003	231	823	87	6.77	5,572
New Guinea Impatiens					
1999	58	151	84	9.21	1,391
2000	46	125	91	8.21	1,026
2001	40	99	83	11.17	1,106
2002	41	103	73	9.89	1,019
2003	28	137	80	7.86	1,077
Pansies/Violas					
2000	195	679	90	6.67	4,529
2001	200	637	89	6.94	4,421
2002	208	821	91	7.34	6,026
2003	216	920	91	6.57	6,044
Petunias					
1999	250	1,651	85	6.35	10,484
2000	268	1,502	85	6.76	10,154
2001	259	1,484	86	7.03	10,433
2002	252	1,430	87	7.42	10,611
2003	252	1,641	85	6.85	11,241
Other flowering and foliar					
1999	259	7,683	88	6.36	48,864
2000	258	4,506	86	6.89	31,046
2001	243	3,985	86	6.91	27,536
2002	241	3,768	86	7.45	28,072
2003	244	4,418	85	6.82	30,131
Vegetables <sup>1</sup>					
1999	210	827	85	6.69	5,533
2000	218	720	83	6.99	5,033
2001	187	567	82	6.97	3,952
2002	186	585	83	7.12	4,165
2003	180	505	78	6.93	3,500

<sup>1</sup> Does not include vegetable transplants grown for commercial use.

**Hanging baskets: Producers, quantity sold, price, and value, 1999-2003**

Item	Producers	Quantity sold	Percent of sales at wholesale	Wholesale price	Value of sales at wholesale
	Number	1,000 baskets	Percent	Dollars	1,000 dollars
Begonias					
2000	148	261	83	5.61	1,464
2001	145	276	82	5.94	1,639
2002	148	350	83	5.84	2,044
2003	165	348	87	5.94	2,067
Geraniums					
1999	240	685	67	6.41	4,391
Geraniums from cuttings					
2000	211	485	73	6.39	3,099
2001	199	399	75	6.76	2,697
2002	211	546	82	6.79	3,707
2003	222	826	84	6.53	5,394
Geraniums from seed					
2000	23	58	70	5.85	339
2001	30	101	76	5.82	588
2002	28	53	91	6.54	347
2003	27	47	91	6.30	296
Impatiens					
1999	218	438	79	4.94	2,164
2000	195	411	85	4.95	2,034
2001	186	376	86	5.49	2,064
2002	180	453	88	5.43	2,460
2003	199	494	85	5.28	2,608
Marigolds					
2000	5	2	94	5.89	12
2001	3	4	100	5.61	22
New Guinea Impatiens					
1999	229	727	73	6.41	4,660
2000	226	607	82	6.45	3,915
2001	219	586	83	6.50	3,809
2002	224	766	89	6.83	5,232
2003	223	768	87	6.75	5,184
Pansies/Violas					
2000	30	36	96	5.65	203
2001	27	33	87	5.57	184
2002	33	51	93	5.54	283
2003	36	49	89	5.52	270
Petunias					
1999	210	252	80	5.27	1,328
2000	178	251	85	4.96	1,245
2001	168	236	79	5.66	1,336
2002	170	346	87	5.66	1,958
2003	196	469	85	5.80	2,720
Other flowering					
1999	262	1,935	85	5.92	11,455
2000	189	1,346	82	5.95	8,009
2001	177	1,164	82	6.21	7,228
2002	191	1,595	88	6.22	9,921
2003	197	1,780	86	5.91	10,520
Foliage					
1999	55	315	93	5.06	1,594
2000	64	299	93	5.54	1,656
2001	52	306	95	4.95	1,515
2002	58	323	95	5.02	1,621
2003	60	212	93	4.81	1,020

**Potted flowering and annual bedding plants: Producers, quantity sold, price, and value, 1999-2003**

Item	Producers	Quantity sold			Percent of sales at wholesale	Wholesale price		Value of sales at wholesale
		Less than 5 inch pots	5 inch pots or larger	Total		Less than 5 inch pots	5 inch pots or larger	
	<i>Number</i>	<i>1,000 pots</i>	<i>1,000 pots</i>	<i>1,000 pots</i>	<i>Percent</i>	<i>Dollars</i>	<i>Dollars</i>	<i>1,000 dollars</i>
Azaleas								
1999	34	16	149	165	84	3.27	7.12	1,113
2000	36	31	116	147	83	3.16	7.20	933
2001	34	14	110	124	69	3.47	6.64	779
2002	28		94	94	87		7.29	685
2003	22		87	87	84		7.43	646
Begonias								
2000	65	397	31	428	63	1.05	1.92	476
2001	69	577	38	615	61	1.26	3.01	841
2002	72	459	54	513	80	1.08	3.60	690
2003	87	563	145	708	90	1.51	2.55	1,220
Chrysanthemums, florist								
1999	41	153	434	587	93	1.42	3.88	1,901
2000	38	127	320	447	87	1.69	3.87	1,453
2001	46	162	647	809	64	1.48	3.78	2,685
2002	37	104	511	615	97	1.69	3.00	1,709
2003	32	63	645	708	98	1.43	2.18	1,496
Chrysanthemums, hardy garden								
1999	131	828	2,692	3,520	93	0.99	2.18	6,688
2000	131	631	2,487	3,118	90	1.11	1.79	5,152
2001	119	255	2,670	2,925	90	1.21	1.76	5,008
2002	127	227	3,611	3,838	94	1.29	1.69	6,395
2003	123	356	4,281	4,637	94	1.73	1.73	8,022
Easter Lilies								
2000	51		1,510	1,510	97		3.47	5,240
2001	55		1,438	1,438	97		3.50	5,036
2002	48	146	1,282	1,428	97	2.75	3.52	4,914
2003	43		1,296	1,296	97		3.58	4,633
Geraniums from cuttings								
1999	203	5,709	1,434	7,143	81	1.32	2.41	10,992
2000	222	3,298	1,369	4,667	67	1.54	2.43	8,406
2001	217	3,101	1,422	4,523	70	1.71	2.52	8,886
2002	215	4,152	1,211	5,363	77	1.40	2.47	8,804
2003	222	3,562	1,333	4,895	69	1.73	3.30	10,561
Geraniums from seed								
1999	104	14,469	108	14,577	97	0.72	2.99	10,741
2000	112	17,662	54	17,716	95	0.76	3.88	13,633
2001	100	15,391	39	15,430	95	0.77	5.45	12,064
2002	98	16,156	10	16,166	98	0.81	3.46	13,121
2003	111	12,756	772	13,528	97	0.82	1.24	11,417
Marigolds								
2000	14		198	198	62		1.22	242
2001	12		212	212	65		1.45	307
2002	14	71	22	93	98	0.84	1.93	102
2003	19	59	60	119	97	0.77	1.63	143
New Guinea Impatiens								
1999	174	1,832	270	2,102	86	1.12	2.92	2,840
2000	190	2,848	287	3,135	89	1.10	3.93	4,261
2001	178	2,753	307	3,060	90	1.23	3.12	4,344
2002	174	3,535	230	3,765	95	1.23	3.27	5,100
2003	179	3,845	357	4,202	92	1.28	3.90	6,314
Pansies/Violas								
2000	34	329	58	387	80	0.67	4.83	501
2001	25	280	64	344	80	0.66	1.93	308
2002	31	576	141	717	98	0.68	2.59	757
2003	45	220	417	637	97	0.82	1.97	1,002

See footnote(s) at end of table.

--continued

**Potted flowering and annual bedding plants: Producers, quantity sold, price, and value, 1999-2003 (continued)**

Item	Producers	Quantity sold			Percent of sales at wholesale	Wholesale price		Value of sales at wholesale
		Less than 5 inch pots	5 inch pots or larger	Total		Less than 5 inch pots	5 inch pots or larger	
	<i>Number</i>	<i>1,000 pots</i>	<i>1,000 pots</i>	<i>1,000 pots</i>	<i>Percent</i>	<i>Dollars</i>	<i>Dollars</i>	<i>1,000 dollars</i>
Petunias								
1999	61	179	190	369	92	0.97	2.10	573
2000	64	390	336	726	63	1.15	1.92	1,094
2001	49	360	243	603	56	1.12	2.16	928
2002	62	461	312	773	94	0.85	2.44	1,153
2003	76	619	803	1,422	92	1.49	1.99	2,520
Poinsettias								
1999	94	1,029	2,894	3,923	90	1.70	3.98	13,267
2000	97	1,375	3,138	4,513	87	1.23	3.88	13,867
2001	100	992	3,057	4,049	85	1.45	3.98	13,605
2002	93	915	2,847	3,762	90	1.60	4.12	13,194
2003	83	958	2,767	3,725	90	1.65	4.21	13,230
Roses, florist								
2000	14	67	37	104	90	2.25	4.24	308
2001	17	52	55	107	95	2.69	4.23	373
2002	10	87		87	95	3.59		312
2003	9		64	64	94		3.61	231
Flowering bulbs								
2000	43	735	999	1,734	97	1.59	3.31	4,475
2001	47	821	665	1,486	96	1.48	3.40	3,476
2002	49	666	1,467	2,133	99	1.52	3.29	5,839
2003	39	901	1,397	2,298	99	2.07	3.32	6,503
Other flowering plants								
1999	61	1,023	1,377	2,400	92	1.51	2.89	5,524
2000	66	982	722	1,704	88	1.64	4.43	4,809
2001	55	805	485	1,290	84	1.61	3.54	3,013
2002	60	977	455	1,432	87	1.58	4.31	3,505
2003	54	1,554	801	2,355	89	1.18	3.87	4,934
Other flowering and foliar type bedding plants								
1999	198	10,519	5,595	16,114	82	1.08	2.95	27,866
2000	131	9,571	1,848	11,419	80	1.01	2.87	14,970
2001	120	9,026	1,372	10,398	82	1.16	3.49	15,258
2002	125	10,294	2,805	13,099	95	1.07	3.12	19,766
2003	137	12,733	4,296	17,029	92	1.38	3.10	30,889
Vegetable type <sup>1</sup>								
1999	77	651	230	881	81	0.61	1.43	726
2000	73	871	135	1,006	88	0.65	1.79	808
2001	65	594	169	763	90	0.86	1.54	771
2002	73	1,066	164	1,230	93	0.69	2.16	1,090
2003	91	1,241	206	1,447	85	0.79	2.10	1,413

<sup>1</sup> Does not include vegetable transplants grown for commercial use.

**Herbaceous perennials: Producers, quantity sold, price, and value, 2001-2003**

Item	Producers	Quantity sold				Percent of sales at wholesale	Wholesale price			Value of All sales at wholesale
		Less than 1 gallon	1 to 2 gallon	2 gallon and larger	Total		Less than 1 gallon	1 to 2 gallon	2 gallon and larger	
	<i>Number</i>	<i>1,000 pots</i>	<i>1,000 pots</i>	<i>1,000 pots</i>	<i>1,000 pots</i>	<i>percent</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>1,000 dollars</i>
Hosta										
2000	106	996	1,040	40	2,076	93	2.75	3.76	7.21	6,938
2001	111	584	1,073	46	1,703	94	2.76	2.89	6.43	5,009
2002	115	936	907	47	1,890	92	2.50	3.68	6.22	5,970
2003	125	825	1,020	67	1,912	90	2.49	3.64	5.85	6,159
Other										
2000	131	13,634	3,613	162	17,409	94	1.03	3.61	6.05	28,066
2001	136	13,890	5,110	317	19,317	94	1.25	3.06	5.90	34,869
2002	142	22,281	6,382	302	28,965	95	1.00	3.43	6.83	46,234
2003	152	15,220	5,377	352	20,949	92	1.11	3.53	6.12	38,029

**Nursery crops: Producers, plants sold, sales and percent wholesale Michigan and 17 states<sup>1</sup>, for operations with \$100,000+ sales, 2003**

Commodity	Number of producers		Number of trees & plants		Gross sales		Percent of sales that were wholesale	
	MI	17 States	MI	17 States	MI	17 States	MI	17 States
	<i>Number</i>	<i>Number</i>	<i>Thousands</i>	<i>Thousands</i>	<i>1,000 dollars</i>	<i>1,000 dollars</i>	<i>Percent</i>	<i>Percent</i>
Broadleaf evergreens	42	1,490	666	123,552	7,118	820,937	83	93
Coniferous evergreens	79	1,448	2,309	37,712	31,175	443,300	91	93
Deciduous shade trees	63	1,546	153	17,146	11,213	511,271	70	91
Deciduous flowering trees	65	1,416	109	13,408	6,082	275,636	60	92
Deciduous shrubs	56	1,428	3,481	98,122	25,999	582,615	83	91
Fruit and nut plants	17	424	2,496	49,962	4,952	216,215	97	87
Christmas trees, cut and to be cut	58	456	1,852	10,315	22,636	183,274	88	91
Transplants for commercial truck crop production	5	91	NA	NA	5,176	173,074	96	99
Propagation material	43	603	NA	NA	33,528	298,299	98	95
Total	154	3,149	NA	NA	150,451	3,970,781	NA	NA

<sup>1</sup> AL, CA, CT, FL, GA, IL, MI, NJ, NY, NC, OH, OR, PA, TN, TX, VA, WA.

# Turfgrass

## Turfgrass survey summary

Sector	Area	Costs		
		Variable inputs	Equipment purchases	Labor and contracted services
	1,000 acres	1,000 dollars	1,000 dollars	1,000 dollars
Private residences	1,575.0	560,000	405,000	226,000
Parks	69.0	6,700	4,400	33,300
Cemeteries	22.2	2,550	1,630	21,645
Apartments	--	15,000	--	30,000
Golf courses	95.8	62,100	20,900	126,200
Sod farms	6.9	4,150	1,370	5,690
Highways <sup>1</sup>	60.7	300	0	555
Schools	59.5	7,500	4,800	60,600
Lawn service companies	640.0	88,800	31,700	140,000
Total <sup>2</sup>	1,889.1	747,100	469,800	643,990

<sup>1</sup> Includes only areas maintained by Michigan Department of Transportation.

<sup>2</sup> Total acres does not include lawn service companies to avoid duplication.

## Input costs for lawns by sector

Sector	Fertilizer	Pesticides <sup>1</sup>	Sod	Seed	Others	Total
	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars
Private residences	115,900	44,300	18,000	37,000	344,800	560,000
Parks	1,130	440	140	460	4,530	6,700
Cemeteries	245	188	34	235	1,848	2,550
Apartments	2,050	1,430	180	250	11,090	15,000
Golf courses	13,500	18,300	1,000	1,400	27,900	62,100
Sod farms	940	325	0	790	2,095	4,150
Highways <sup>2</sup>	10	255	0	5	30	300
Schools	1,870	680	250	560	4,140	7,500
Lawn service companies	22,100	11,300	4,500	4,200	46,700	88,800
Total	157,745	77,218	24,104	44,900	443,133	747,100

<sup>1</sup> Herbicides, insecticides, and fungicides.

<sup>2</sup> Includes only areas maintained by Michigan Department of Transportation.

## Acreage of principal varieties of grass for golf courses, parks, schools, and cemeteries

Variety	Area	
	Acres	Percent
Bluegrass/Fescue	57,150	23.2
Kentucky Bluegrass	34,050	13.8
Bentgrass	16,630	6.7
Poa-Annua	12,910	5.2
Poa/Bentgrass	7,580	3.1
Ryegrass	17,030	6.9
Fine Fescue	6,110	2.5
Improved Turf Type Tall Fescue	3,740	1.5
Natural	14,260	5.8
Kentucky 31 Tall Fescue	2,020	0.8
Other	12,670	5.1
Unknown	62,350	25.3
Total	246,500	100

## Turf maintenance employees by sector

Sector	Year-round employees	Seasonal employees
	Number	Number
Parks	900	2,130
Cemeteries	700	1,400
Golf courses	1,700	8,150
Sod farms	70	265
Schools	1,700	1,650
Lawn service companies	4,100	7,500
Total	9,170	21,095